

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3, 5-8 and 10-26 are pending in the present application. Claims 4, 9 and 27 have been canceled and claims 1, 2, 6-8, 10, 20, 22 and 24 have been amended by the present amendment.

In the outstanding Office Action, the drawings, specification and claims were objected to; claims 2 and 4-8 were rejected under 35 U.S.C. § 112, second paragraph; claims 1, 4, 6, 9-14, 17, 18, 20, 21 and 23-27 were rejected under 35 U.S.C. § 103(a) as unpatentable over Applicants Admitted Prior Art (AAPA) in view of Wobus and Slaughter, III et al.; claims 2, 5 and 7 were rejected under 35 U.S.C. § 103(a) as unpatentable over AAPA in view of Wobus, Slaughter, III et al. and Hong et al.; and claims 3, 8, 15, 16, 19 and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over AAPA in view of Wobus, Slaughter, III et al. and "Reserved Addresses."

The specification has been amended to include a description of step S12 in Figure 2. Accordingly, it is respectfully requested the objection to the drawings be withdrawn. Further, the specification and claims have been amended in light of the comments noted in the Office Action. Accordingly, it is respectfully requested these objections also be withdrawn.

Similarly, the claims have been amended in light of the comments noted in the Office Action regarding the rejection of claims 2 and 4-8 under 35 U.S.C. § 112, second paragraph. In addition, regarding this rejection, the Office Action indicates the limitation "said database" in claim 2, lines 9 and 11 and claim 5, line 2 does not have proper antecedent basis. However, it is respectfully noted the phrase "a database" is in line 7 of claim 2. Accordingly, it is respectfully requested this rejection be withdrawn.

The present invention currently includes independent claims 1, 6, 10, 20 and 24. Independent claims 1 and 6 have been amended to respectively include the subject matter recited in the dependent claims 4 and 9. Independent claims 10 and 20 have been amended in a similar fashion. Independent claim 24 has been amended to include the subject matter recited in dependent claim 27. Comments will first be presented distinguishing amended independent claims 1, 6, 10 and 20 followed by comments distinguishing independent claim 24.

In more detail, independent claim 1 is directed to an internet protocol (IP) address managing apparatus including a switch unit that searches for an idle IP address among a plurality of IP addresses stored in a database to allocate the idle IP address to an internet connection system. Further, the database searches for the idle IP address, under the control of a call processing unit, when said internet connection system requests the call processing control unit allocate the idle IP address. Independent claims 6, 10 and 20 include similar

features in a varying scope.

Regarding the subject matter recited in claim 4, the Office Action indicates it would have been inherent that the database searches for the idle IP address, under control of the call processing unit because otherwise subscribers that connect through different internet connection systems would not be able to share the address pool.

However, it is respectfully noted that Wobus is directed to dynamic allocation in which the server will track leases and give IP addresses whose lease has expired to other DHCP clients (see page 14, for example). As noted at page 4, item 10, a DHCP lease is the amount of time the DHCP server grants permission to the DHCP client to use a particular IP address. A typical server allows its administrator to set the lease time. Examples of lease time are shown at page 11, for example, and include 15 minutes, 6 hours, 12 hours, 3 days, etc.

Thus, even if the IP address in Wobus is not being used by a client (is idle), there is the possibility that the IP address is still allocated to the user if the lease time has not expired. Thus, in Wobus, even if a client is not using a particular IP address, but has a lease that is not expired, the IP address is essentially not idle and therefore not reassigned to another user. This wastes resources. On the contrary, according to the present invention, an idle IP address is assigned in response to an allocation request. Further, the dynamic allocation in Wobus is not in response to an Internet connection system request that the call processing

unit allocate the idle IP address. That is, in Wobus, the server tracks lease times and then puts IP addresses into a general pool to be used by other DHCP clients. The server does not track the lease times that have expired in response to a request. Rather, it is respectfully submitted the server in Wobus independently tracks expired leases and then pools the IP addresses of the expired leases, which are then given to other clients. This differs from the present invention in which an idle IP address is searched and assigned in response to a particular allocation request. It is respectfully submitted the other cited art also does not teach or suggest these features.

Further, as noted above, independent claim 24 has been amended to include the subject matter recited in dependent claim 27. It is respectfully noted independent claim 24 also indicates that an idle IP address is allocated when a subscriber requests access to the Internet connection system. As noted above, Wobus does not teach or suggest these features. Independent claim 24 also recites that the database is searched for one of a number of idle IP addresses that is not currently allocated to the number of Internet connection systems. That is, the searching is done in response to a request by the user such that an idle IP address is randomly selected to thereby prevent exhausting IP addresses when a number of subscribers try connecting or idle addresses are generated in the internet system with a seldom used connection (see paragraph 17, at page 5, in the specification, for example). It is respectfully submitted the applied art also does not teach or suggest these features.

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Amdt. dated March 29, 2005

Reply to Office Action of January 4, 2005

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **David A. Bilodeau**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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